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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,569	02/19/2004	Toshihiko Ogura	118778	1691
25944	7590	08/09/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER NATNITHADHA, NAVIN	
			ART UNIT 3736	PAPER NUMBER

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,569	Applicant(s) OGURA ET AL.	
	Examiner Navin Natnithithadha	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06082005, 02192004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Examiner's Comment

1. Claims 1 and 2 appear to invoke 35 U.S.C. 112, sixth paragraph, by using the phrase "means for" or "step for". However, in order to properly invoke 35 U.S.C. 112, sixth paragraph, the Applicant should amend the following:

In claim 1, line 5, "a signal converting means for converting," to - - a means for converting the pulse wave signal, - -; and

In claim 2, lines 1 and 2, "a signal normalizing means for normalizing" to - - a means for normalizing - -.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito, US 4,355,644 A.

Claims 1 and 6: Saito teaches a "pulse wave detecting apparatus" (heart rate bio-feedback system) (see fig. 1), comprising:

a “pulse wave sensor” (pulse sensor) 1 which “detects a pulse wave produced from a living subject and outputs a pulse wave signal representing the detected pulse wave” (see col. 2, lines 4-6);

a “signal converting means”, or a “signal converting device”, (combination of oscillator 13 and modulator 14) 13/14 for “converting, according to a predetermined relationship between magnitude of pulse wave signal, and frequency, the pulse wave signal outputted from the pulse wave sensor, into a converted signal having an audible frequency” (see col. 2, lines 15-32); and

a “sound outputting device” (speaker) 15 which “outputs a sound representing the converted signal provided by the signal converting means 13/14 (see col. 2, lines 32-35).

Claim 3: Saito teaches the signal converting means 14 “modulates, by using the pulse wave signal as a modulating signal, an audible frequency of a to-be-modulated signal, and thereby provides a modulated signal as the converted signal” (see col. 2, lines 30-35).

Claim 4: Saito teaches a “display device” (display section) 18 which “displays the pulse wave signal outputted from the pulse wave sensor” (see fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 2, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito, US 4,355,644 A, as applied to claims 1 and 6 above, and further in view of over Pak et al, US 5,381,797 A.

Claims 2, 5, and 7: Saito does not teach a “signal normalizing means”, or specifically “signal normalizing device”, and a “display device” which displays the pulse wave signal that has been normalized by the signal normalizing means. However, normalizing a pulse signal is a well-known computational algorithm for signal processing. For example, Pak teaches a “pulse wave detecting apparatus” (pulse diagnostic device) (see figs. 1 and 8), comprising: a “pulse wave sensor” 1; and a “signal normalizing

Art Unit: 3736

means" (analyzer including an algorithm) 6 for "normalizing a magnitude of the pulse wave signal outputted from the pulse wave sensor" (see col. 8, lines 46-58). Saito's "signal converting means" 13/14 would be capable of converting the normalized pulse signal into a modulated signal for outputting sounds using the speaker. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Saito to include a signal normalizing means in order to "enhance the accuracy of results" (see Pak, col. 6, lines 20-21).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (571) 272-4732. The examiner can normally be reached on Monday-Friday, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Navin Natnithithadha
Patent Examiner
GAU 3736
11 August 2005